

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 5938 - L2 Version 3
Chandra X-Ray Center

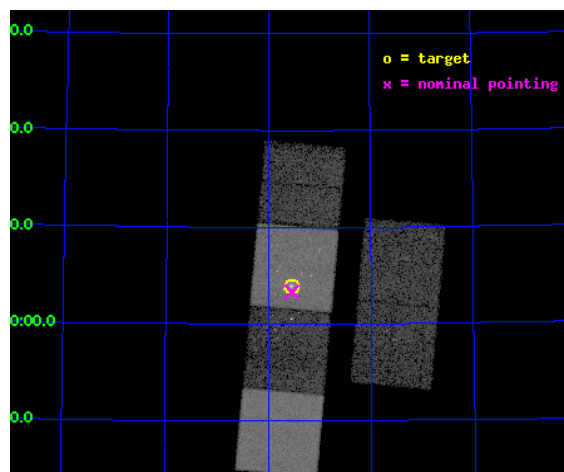
L2 Processing Date : Dec 24 2012

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1 Front

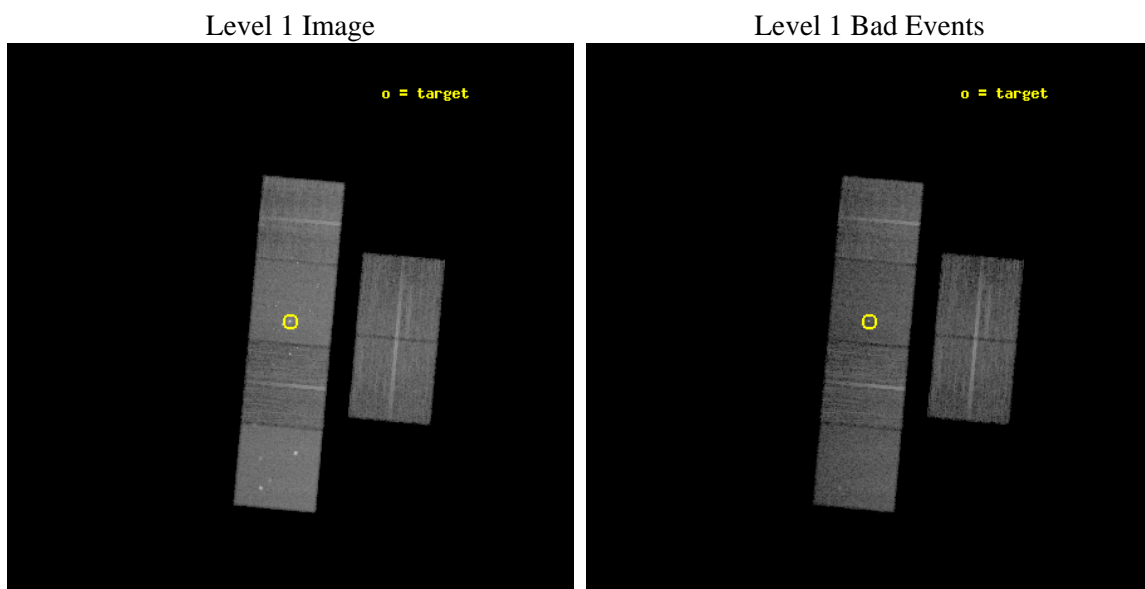
| | | |
|----------|---|---|
| seq_num | 600457 | Sequence number |
| obs_id | 5938 | Observation id |
| title | An Unprecedented View of a Galaxy's Dynamic X-ray Source Population | |
| observer | Prof. David Pooley | Principal investigator |
| object | M81 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 148.888333 | Observer's specified target RA [deg] |
| dec_targ | 69.065306 | Observer's specified target Dec [deg] |
| ra_nom | 148.88606648786 | Nominal RA [deg] |
| dec_nom | 69.055678769932 | Nominal Dec [deg] |
| roll_nom | 275.15874522206 | Nominal Roll [deg] |
| revision | 3 | Processing version of data |
| ontime | 11958.399955451 | Sum of GTIs [s] |
| livetime | 11806.975494732 | Livetime [s] |
| ontime2 | 11958.399955451 | Sum of GTIs [s] |
| ontime3 | 11958.399955451 | Sum of GTIs [s] |
| ontime5 | 11958.399955451 | Sum of GTIs [s] |
| ontime6 | 11955.158995181 | Sum of GTIs [s] |
| ontime7 | 11958.399955451 | Sum of GTIs [s] |
| ontime8 | 11958.399955451 | Sum of GTIs [s] |
| l2events | 156550 | Number of level 2 events |



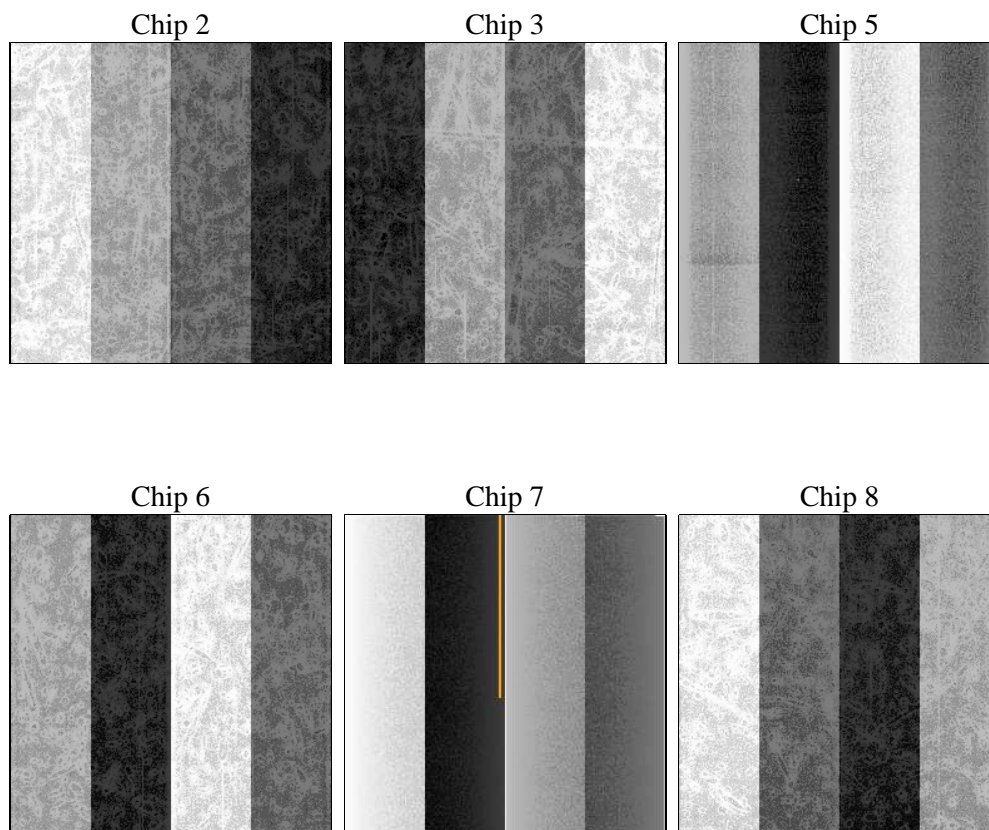
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 12000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.5.1.1 | Processing system revision | ontime | 11958.399955451 | Sum of GTIs [s] |
| caldsver | 4.5.5 | | ontime2 | 11958.399955451 | Sum of GTIs [s] |
| date | 2012-12-24T11:49:10 | Date and time of file creation | ontime3 | 11958.399955451 | Sum of GTIs [s] |
| revision | 3 | Processing version of data | ontime5 | 11958.399955451 | Sum of GTIs [s] |
| | | | ontime6 | 11955.158995181 | Sum of GTIs [s] |
| | | | ontime7 | 11958.399955451 | Sum of GTIs [s] |
| | | | ontime8 | 11958.399955451 | Sum of GTIs [s] |
| | | | l1events | 656172 | Number of level 1 events |

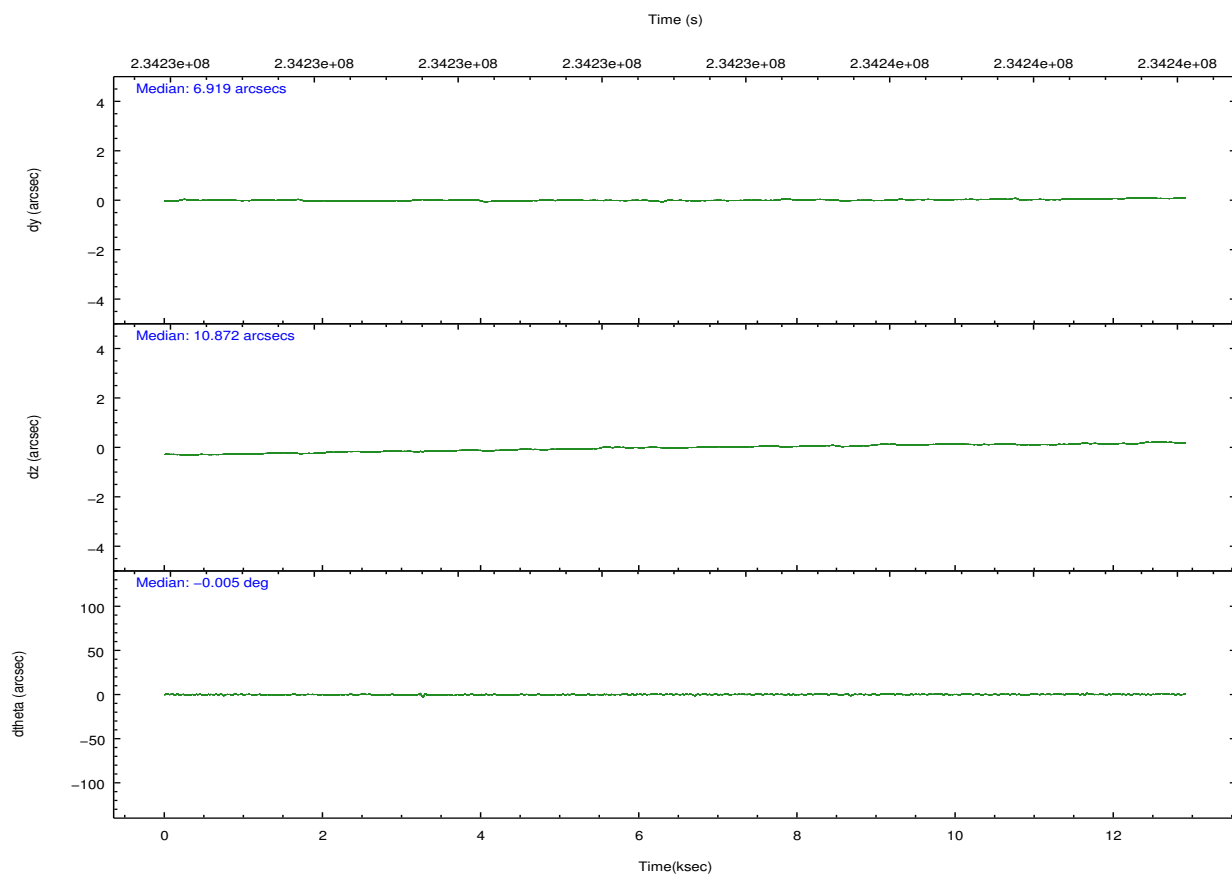
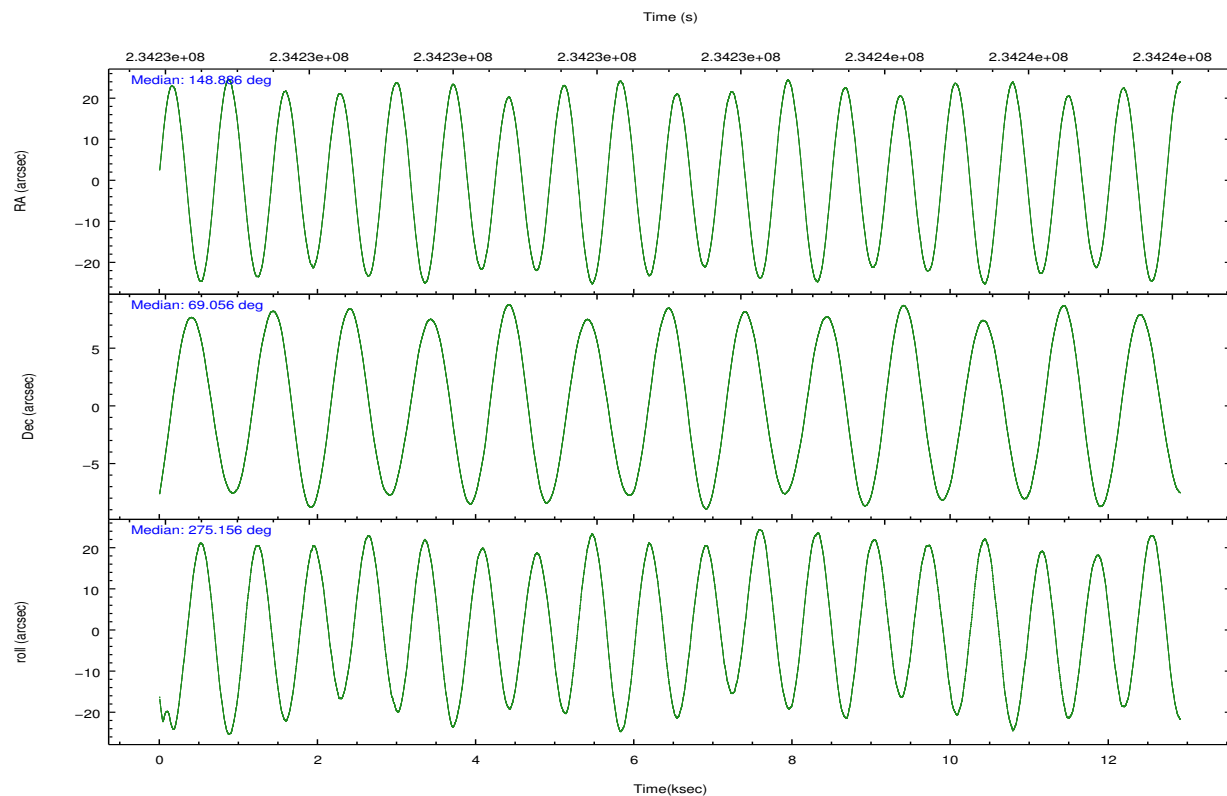
2.1.4 Events

| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|-------|-------|--------|-------|--------|--------|----------------|-------|-------|-------|-------|-------|-------|
| level 1 events | 89790 | 87542 | 137272 | 92036 | 133886 | 115646 | grade 0 events | 4763 | 4617 | 7670 | 5945 | 6943 | 7783 |
| rejected events | 78893 | 76990 | 73676 | 79098 | 74712 | 90911 | | 5% | 5% | 5% | 6% | 5% | 6% |
| rejected % | 87% | 87% | 53% | 85% | 55% | 78% | grade 1 events | 55 | 53 | 319 | 83 | 235 | 83 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 2281 | 1979 | 18530 | 2496 | 11997 | 5583 |
| | | | | | | | | 2% | 2% | 13% | 2% | 8% | 4% |
| | | | | | | | grade 3 events | 993 | 1018 | 2337 | 1118 | 5308 | 2545 |
| | | | | | | | | 1% | 1% | 1% | 1% | 3% | 2% |
| | | | | | | | grade 4 events | 1016 | 1016 | 2319 | 1053 | 5342 | 2332 |
| | | | | | | | | 1% | 1% | 1% | 1% | 3% | 2% |
| | | | | | | | grade 5 events | 3658 | 3972 | 9907 | 4236 | 12068 | 5592 |
| | | | | | | | | 4% | 4% | 7% | 4% | 9% | 4% |
| | | | | | | | grade 6 events | 1844 | 1922 | 32779 | 2328 | 29602 | 6497 |
| | | | | | | | | 2% | 2% | 23% | 2% | 22% | 5% |
| | | | | | | | grade 7 events | 75180 | 72965 | 63411 | 74777 | 62391 | 85231 |
| | | | | | | | | 83% | 83% | 46% | 81% | 46% | 73% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| Detector | ACIS-235678 | ACIS-235678 | Obspar file type | PREDICTED | ACTUAL |
| Grating | NONE | NONE | Obspar update status | NONE | UPDATED |
| Data mode | FAINT | FAINT | Number of optional ACIS chips dropped | 0 | 0 |
| Observation mode | POINTING | POINTING | On-chip summing requested | N | N |
| [deg] Pointing RA | 148.841248 | 148.8860664878555 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | 69.077716 | 69.05567876993216 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 275.043974 | 275.1587452220558 | [s] Primary exposure time | 0.000000 | 3.2 |
| [mm] SIM focus pos | -0.684267 | -0.6828225247311905 | | | |
| [mm] SIM defocus | 0 | 0.001444936568705701 | | | |
| [mm] SIM translation stage pos | -190.132523 | -190.1400660498719 | | | |
| [mm] SIM translation stage offset | 0 | 0.00754346686406393 | | | |
| [s] Observation start time (MET) | 234227474.184000 | 234226149.85276 | | | |
| Observation start date | 2005-06-03T23:10:10 | 2005-06-03T22:49:09 | | | |
| [s] Observation end time (MET) | 234239474.184000 | 234240514.20341 | | | |
| Observation end date | 2005-06-04T02:30:10 | 2005-06-04T02:48:34 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect

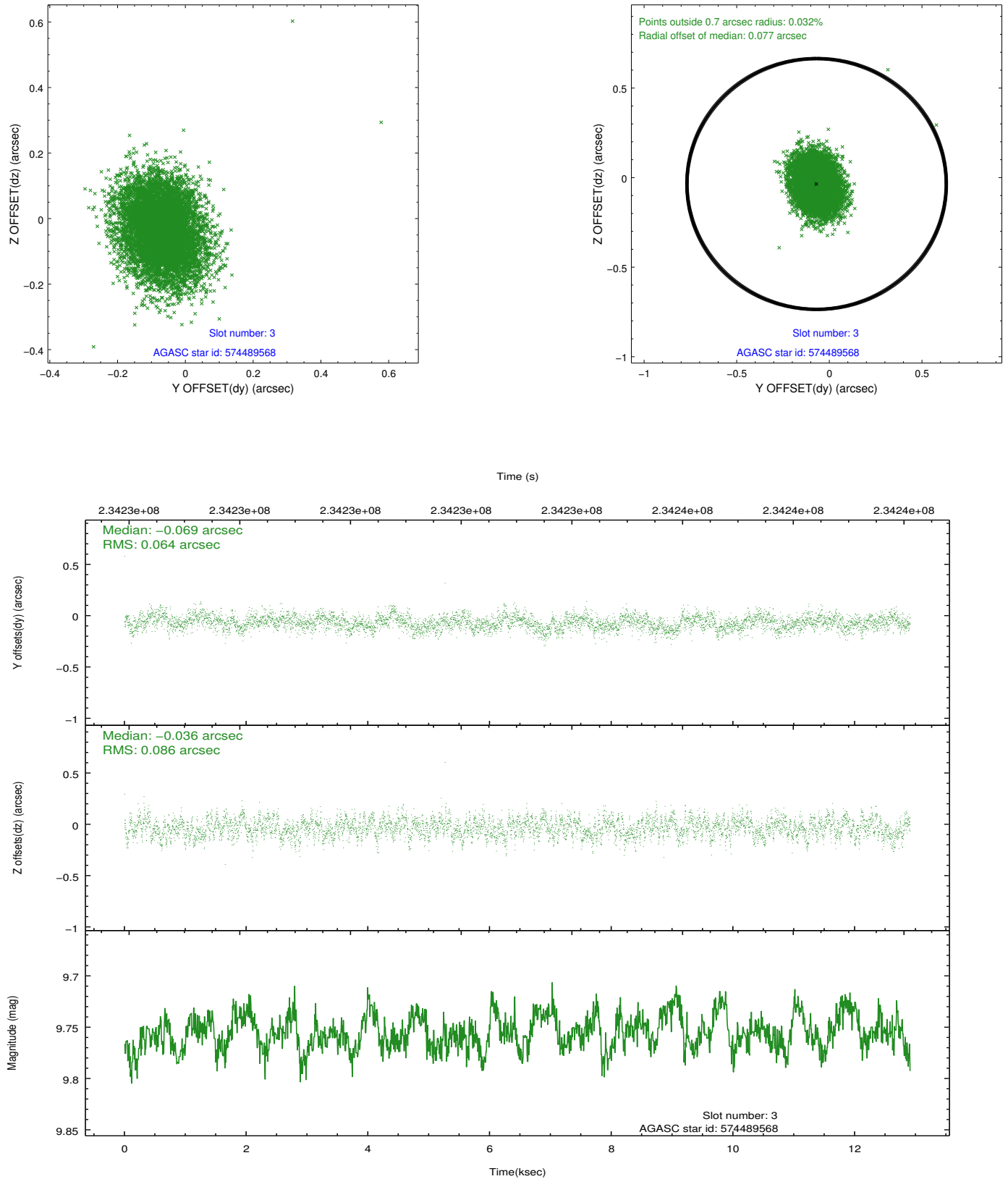


Slot Statistics

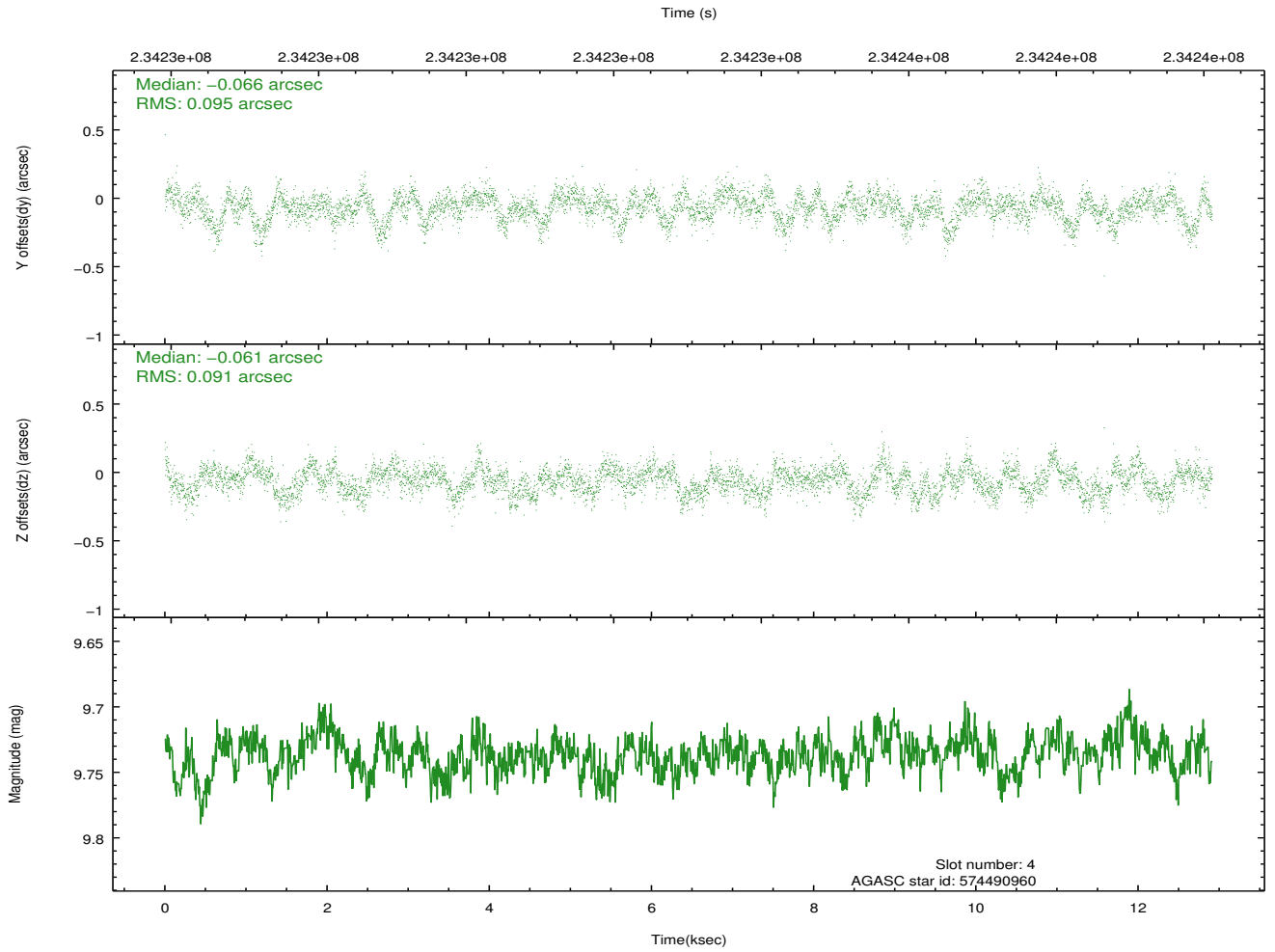
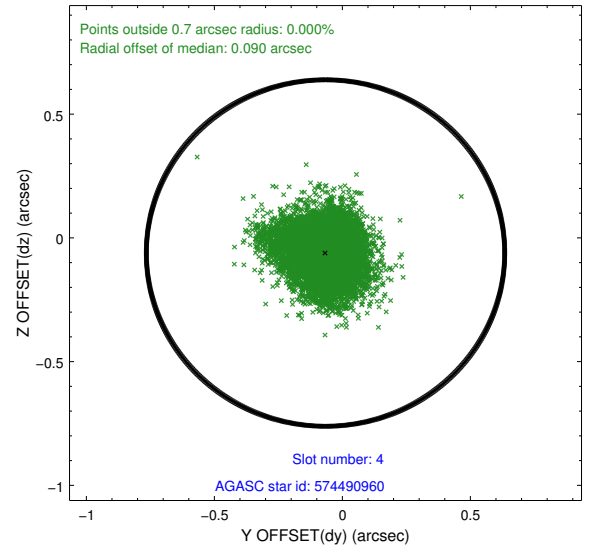
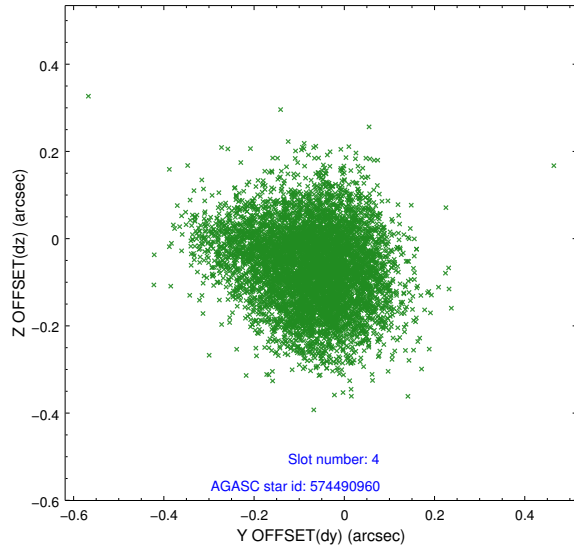
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|-------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | ACIS-S-2 | 7.10 | 3149 | -0.053 | -0.013 | 0.007 | 0.011 | 0.000000 | 0.000000 | -759.70 | -1732.14 |
| 1 | FID | ACIS-S-4 | 7.20 | 3148 | 0.081 | 0.029 | 0.007 | 0.012 | 0.000000 | 0.000000 | 2153.51 | 176.04 |
| 2 | FID | ACIS-S-5 | 7.23 | 3149 | -0.060 | -0.007 | 0.007 | 0.011 | 0.000000 | 0.000000 | -1812.09 | 170.04 |
| 3 | GUIDE | 574489568 | 9.76 | 6293 | -0.069 | -0.036 | 0.113 | 0.181 | 147.223974 | 69.438157 | -1498.83 | -1920.33 |
| 4 | GUIDE | 574490960 | 9.74 | 6287 | -0.066 | -0.061 | 0.141 | 0.225 | 148.185918 | 69.658768 | -2159.92 | -633.17 |
| 5 | GUIDE | 574491280 | 9.36 | 6295 | -0.055 | 0.011 | 0.097 | 0.158 | 148.611567 | 69.450135 | -1361.11 | -171.99 |
| 6 | GUIDE | 574497600 | 10.44 | 6284 | 0.083 | -0.013 | 0.187 | 0.302 | 147.824120 | 68.451903 | 2115.30 | -1536.79 |
| 7 | GUIDE | 574496360 | 9.46 | 6295 | 0.115 | 0.108 | 0.121 | 0.199 | 150.806604 | 68.529829 | 2151.92 | 2409.61 |

2.4 Star Slots

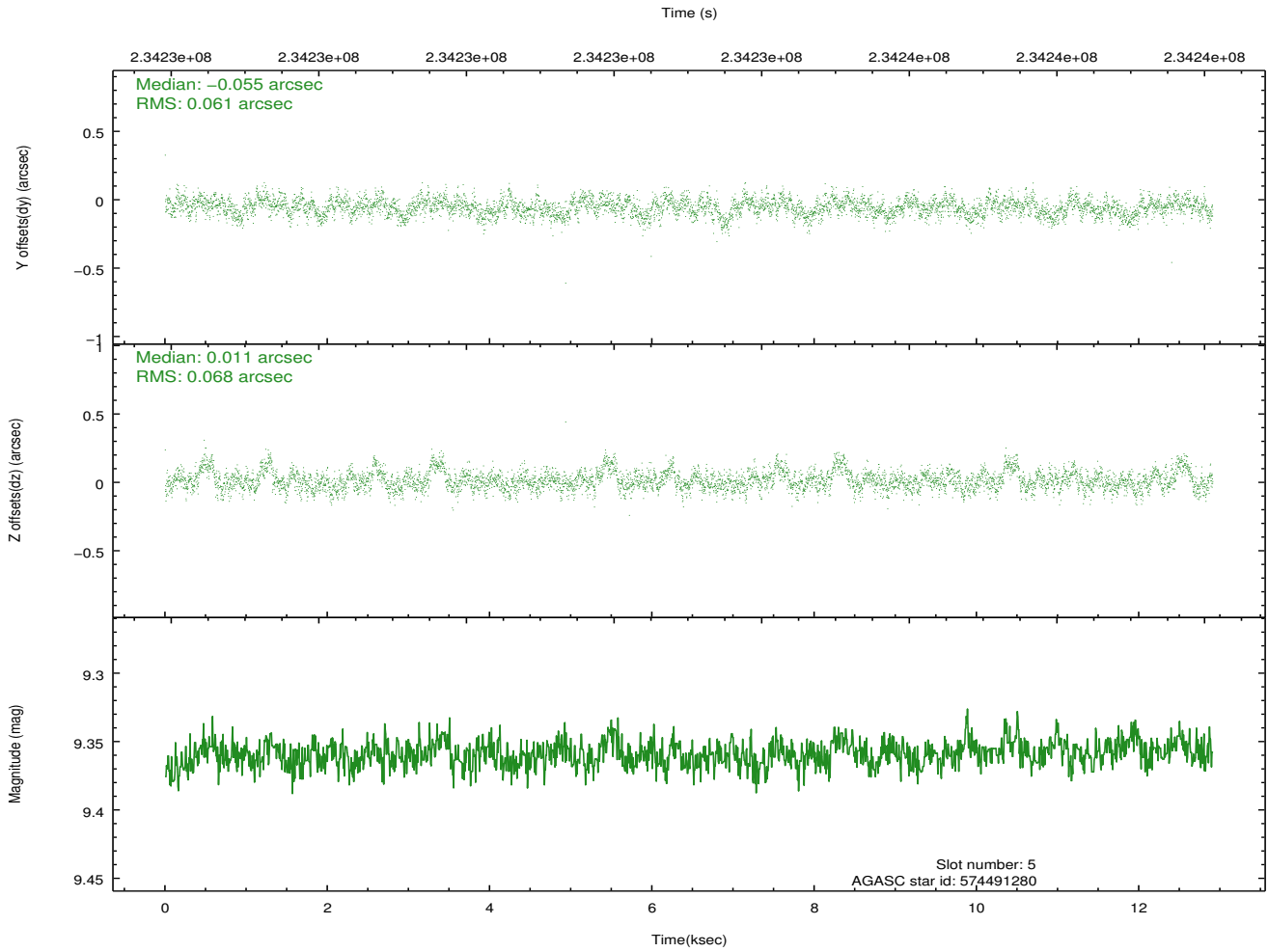
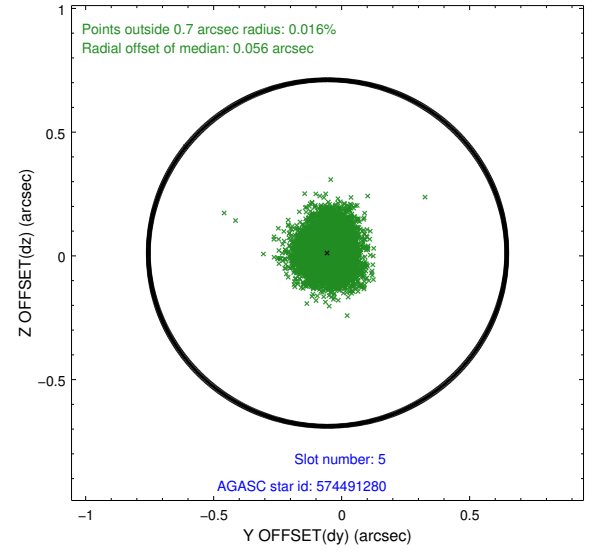
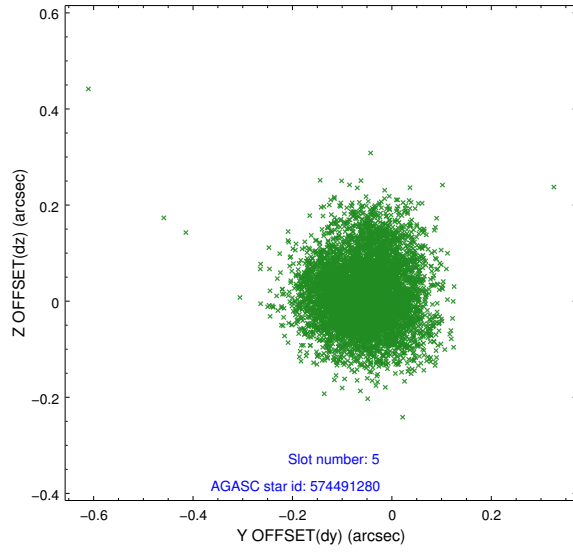
2.4.1 Slot 3



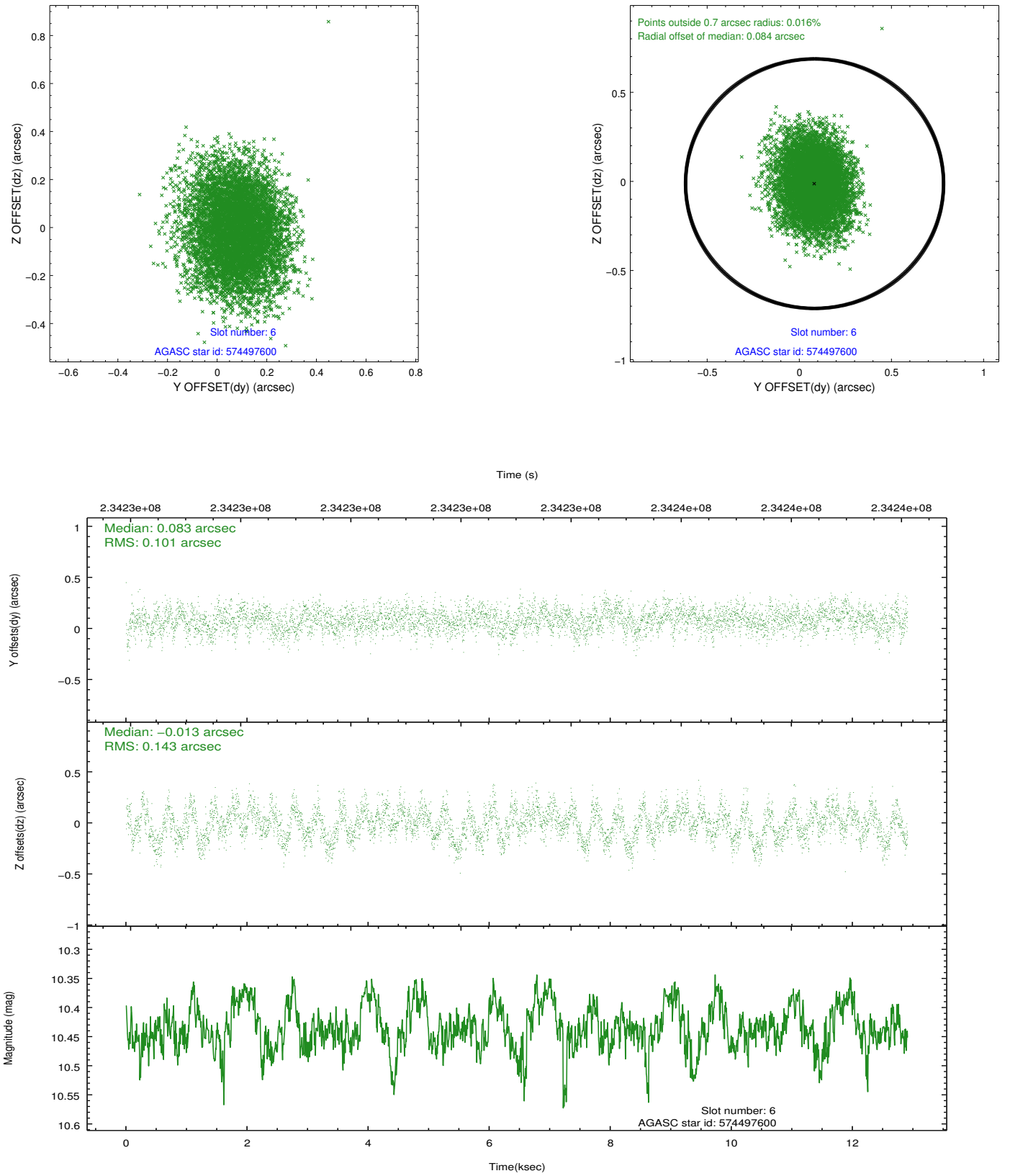
2.4.2 Slot 4



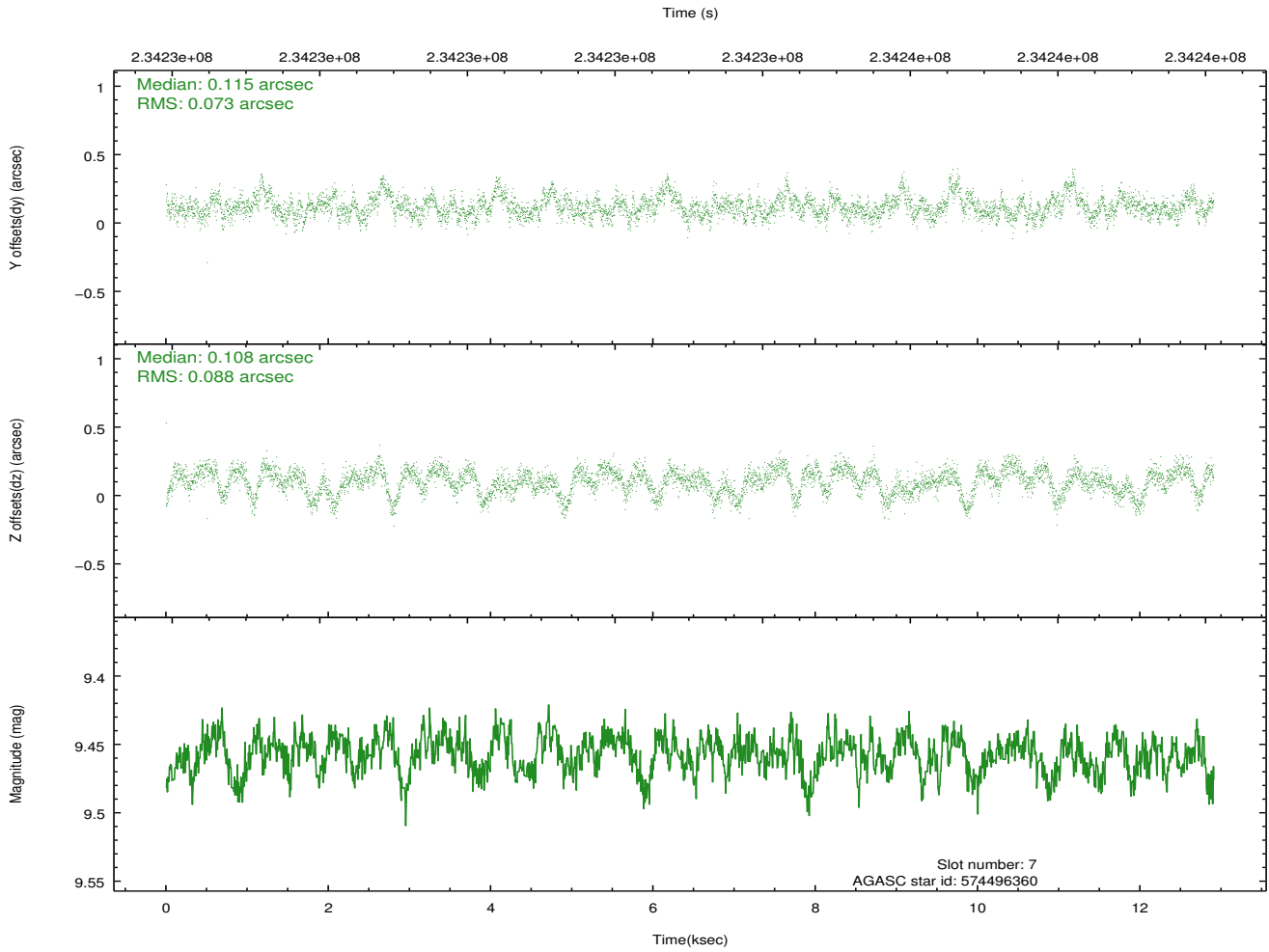
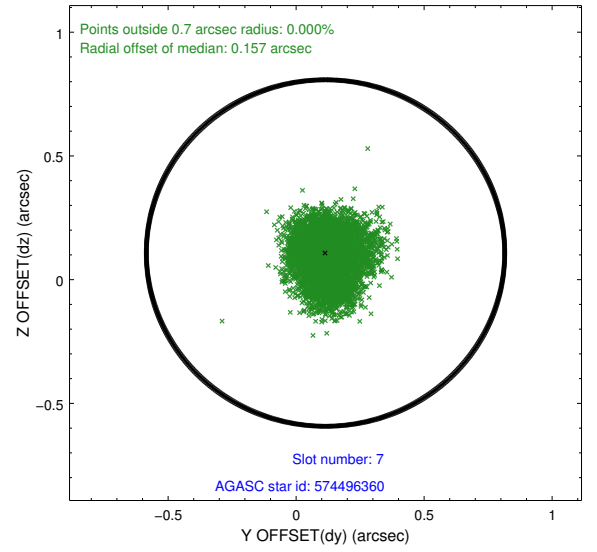
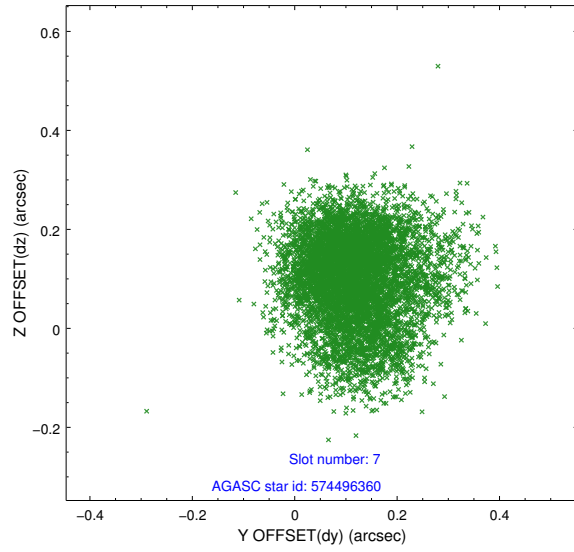
2.4.3 Slot 5



2.4.4 Slot 6

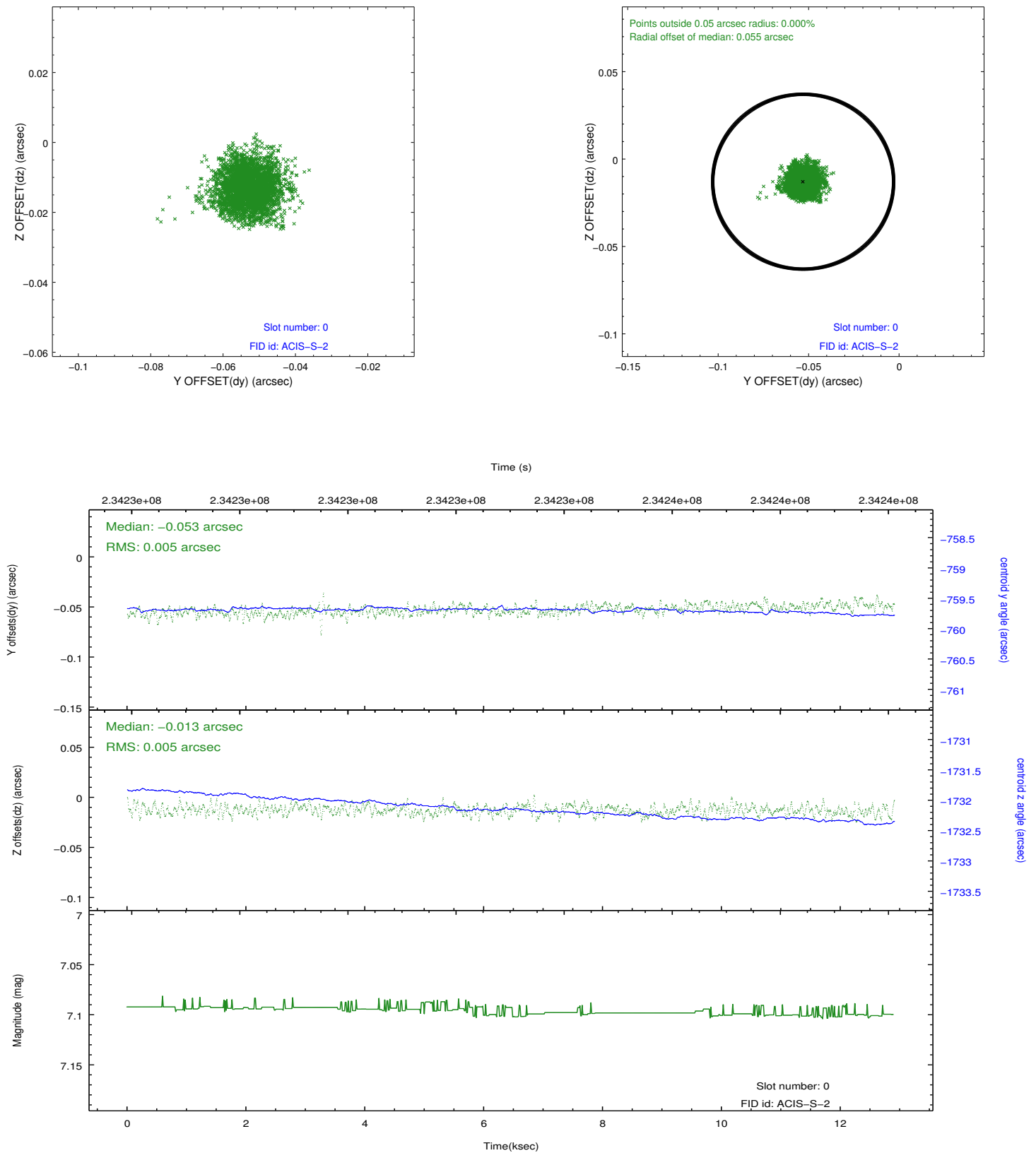


2.4.5 Slot 7

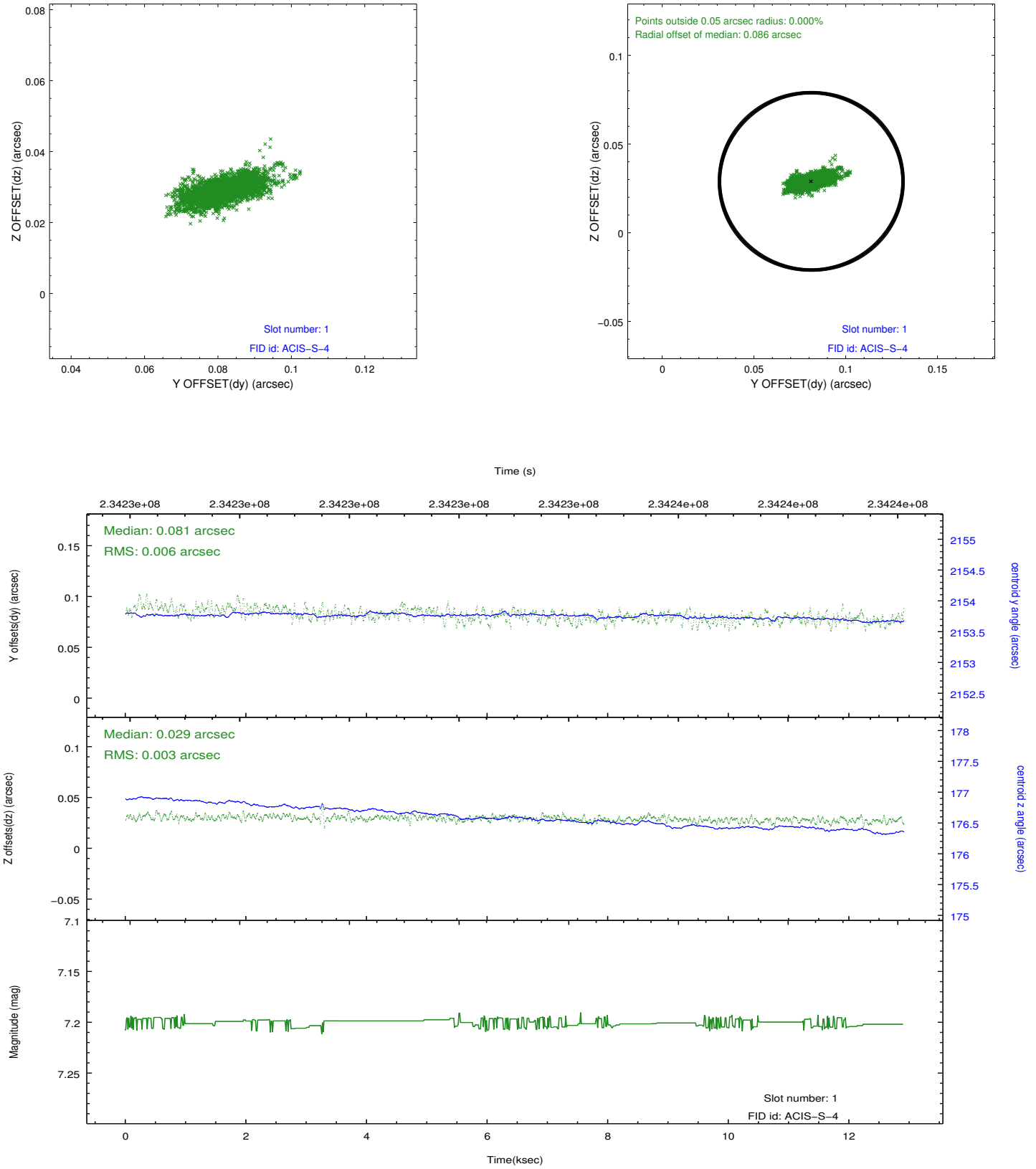


2.5 FID Slots

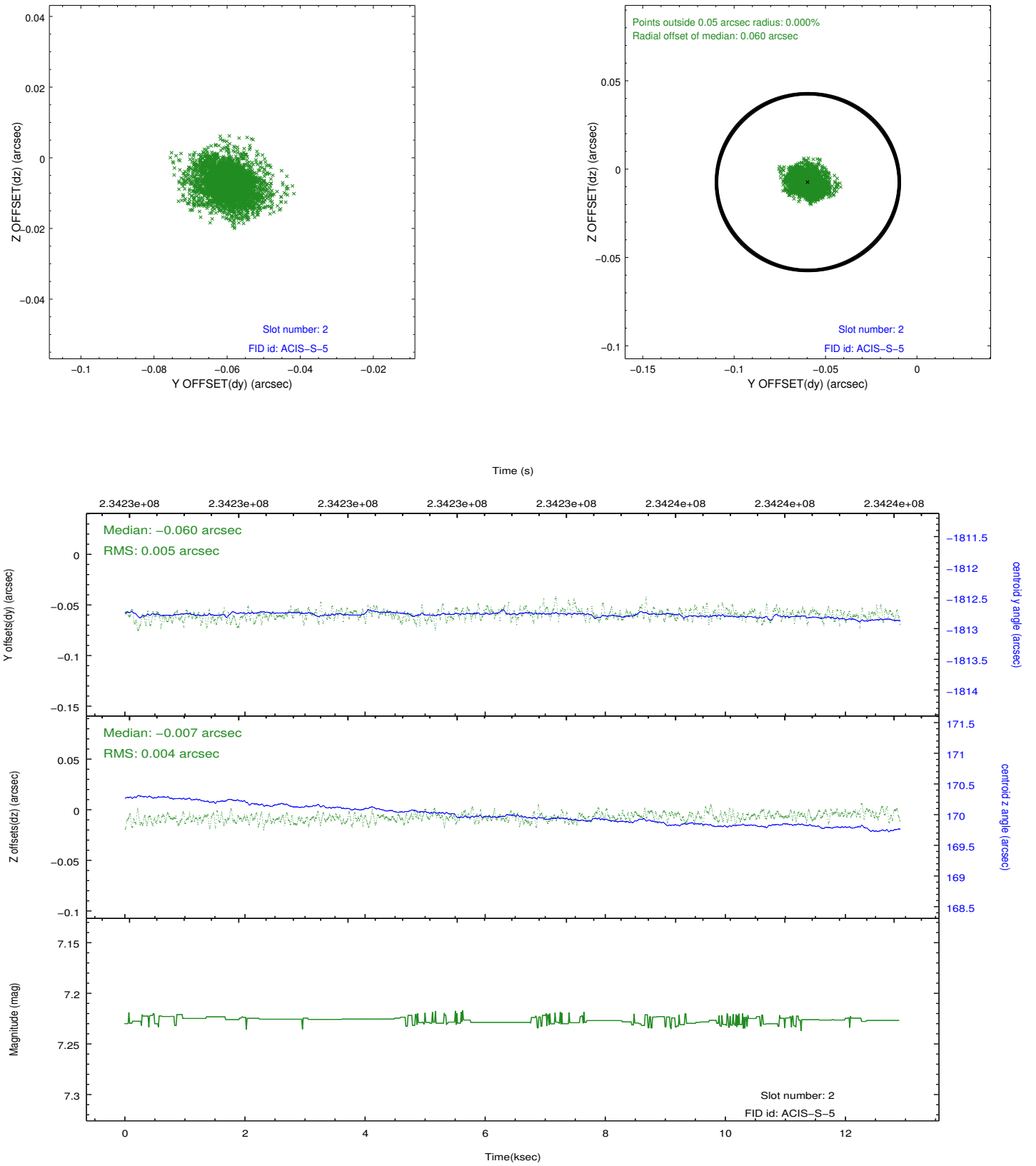
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

| | |
|----------------------------|------------|
| V&V Scientist | Jen Lauer |
| V&V Date (YYYY-MM-DD) | 2013.01.16 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 11.95839 |

A.2 Comments